Zeitschrift:Helvetica Physica ActaBand:69 (1996)Heft:1

Buchbesprechung: Knot theory and its applications [Murasugi, K.]

Autor: [s.n.]

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. <u>Mehr erfahren</u>

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. <u>En savoir plus</u>

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. <u>Find out more</u>

Download PDF: 05.08.2025

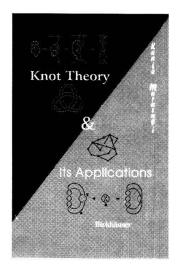
ETH-Bibliothek Zürich, E-Periodica, https://www.e-periodica.ch

A. Kawauchi, Osaka City University, Japan

A Survey on Knot Theory



1996. Approx. 440 pages. Hardcover Approx. DM 128.–/öS 934.40/sFr. 108.– ISBN 3-7643-5124-1



Knot theory is a rapidly developing field of research with many applications not only for mathematics. The present volume, written by a well-known specialist, gives a complete survey of knot theory from its very beginnings to today's most recent research results. The topics include Alexander poly-

nomials, Jones type polynomials, and Vassiliev invariants.

With its appendix containing many useful tables and an extended list of references with over 3,500 entries it is an indispensable book for everyone concerned with knot theory.

The book can serve as an introduction to the field for advanced undergraduate and graduate students. Also researchers working in outside areas such as theoretical physics or molecular biology will benefit from this thorough study which is complemented by many exercises and examples.

K. Murasugi, University of Toronto, Canada

Knot Theory and Its Applications Translated by Bohdan Kurpita

1996. Approx. 341 pages. Hardcover DM 118.- / öS 861.40 / sFr. 98.-ISBN 3-7643-3817-2

Knot theory is a concept in algebraic topology that has found applications to a variety of mathematial problems as well as in computer science, biological and medical research, and mathematical physics. This book is directed to a broad audience of research workers and beginning graduate students in these fields. It contains most of the fundamental classical facts about the theory, such as knot diagrams, braid representations, Seifert surfaces, tangles, and Alexander polynomials, as well as more recent developments and special topics such as chord diagrams and covering spaces.

It is an introduction to the fascinating study of knots and provides insight into recent applications to such studies as DNA research and graph theory. The author clearly outlines what is known and what is not known about knots. He has been careful to avoid advanced mathematical terminology and intricate techniques in algebraic topology or group theory. Numerous diagrams and exercises interconnect material from different areas. Developments over the past ten years are described, in particular the study of Jones polynomials and the Vassiliev invariants.

Please order through your bookseller or write to:

Birkhäuser Verlag AG P.O. Box 133 CH-4010 Basel / Switzerland FAX: ++41 / 61 / 205 07 92 e-mail: farnik@birkhauser.ch For orders originating in the USA or Canada:

Birkhäuser 333 Meadowlands Parkway USA-Secaucus, NJ 07094-2491 FAX: ++1 201 348 4033 e-mail: orders@birkhauser.com



Birkhäuser Basel • Boston • Berlin